

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-21 (Canceled):

Claim 22 (New): An air cleaning device comprising:

a bulb-shaped casing provided at one end with a fed portion configured to be attached to a feed portion and connected to a commercial power source and at the other end with a recess serving as an outlet;

an AC/DC converter accommodated in the casing for converting an alternating current from the fed portion into a direct current;

a boosting transformer accommodated in the casing for boosting voltage from the AC/DC converter; and

a negative ion generator projecting from a bottom in the outlet of the casing and connected to the boosting transformer for enabling application of high voltage from the boosting transformer to the negative ion generator so as to induce electrical discharge, generate negative ions, and release the negative ions from the outlet.

Claim 23 (New): The air cleaning device according to claim 22, wherein the bulb-shaped casing comprises a casing body having one end provided with the fed portion and the other end being an open end, and a lid having one end provided with the outlet and the other end at least one of fixed and detachably attached to the open end of the casing body.

Claim 24 (New): The air cleaning device according to claim 22, wherein the negative ion generator is a needle electrode having a distal end directed to a side of the outlet.

Claim 25 (New): The air cleaning device according to claim 22, wherein the DC/AC converter and the boosting transformer are made integral.

Claim 26 (New): The air cleaning device according to claim 22, wherein the bulb-shaped casing includes an illuminator at the other end.

Claim 27 (New): The air cleaning device according to claim 22, wherein the fed portion comprises a base configured to be attached to and detached from a socket.

Claim 28 (New): The air cleaning device according to claim 22, wherein the fed portion comprises a base having a pair of pins projecting from a peripheral surface in opposite directions.

Claim 29 (New): The air cleaning device according to claim 22, wherein the fed portion comprises a plug having a pair of at least one of blades and pins configured to be attached to and detached from an electrical receptacle.

Claim 30 (New): An air cleaning device comprising:  
a bulb-shaped casing provided at one end with an attached portion configured to be attached to an attaching portion and connected to a commercial power source and at the other end with an outlet;

an ozone generator accommodated in the bulb-shaped casing; and

an air supply portion formed in the casing for supplying air into the ozone generator;

wherein the ozone generator comprises a needle first electrode having a distal end directed to the outlet and a cylindrical second electrode concentric with the first electrode and

disposed concentrically with the outlet, with high voltage applied between the first electrode and the second electrode so as to induce electrical discharge therebetween, generate negative ions and ozone, and release a stream of air containing the generated negative ions and ozone from the first electrode to the second electrode and outlet.

Claim 31 (New): The air cleaning device according to claim 30, wherein the bulb-shaped casing comprises a casing body having one end provided with the attached portion and the other end being an open end, and a lid having one end provided with the outlet and the other end detachably attached to the other end of the casing body.

Claim 32 (New): The air cleaning device according to claim 31, wherein the first electrode is accommodated in the casing body and the second electrode in the lid.

Claim 33 (New): The air cleaning device according to claim 31, wherein the DC/AC converter and the boosting transformer are made integral.

Claim 34 (New): The air cleaning device according to claim 30, wherein the casing includes at the other end an illuminator.

Claim 35 (New): The air cleaning device according to claim 30, wherein the attached portion comprises a base configured to be attached to and detached from a socket.

Claim 36 (New): The air cleaning device according to claim 30, wherein the attached portion comprises a base having a pair of pins projecting from a peripheral surface in opposite directions.

Claim 37 (New): The air cleaning device according to claim 30, wherein the attached portion comprises a plug having a pair of at least one of blades and pins configured to be attached to and detached from an electrical receptacle.

Claim 38 (New): An air cleaning device comprising:

a bulb-shaped casing provided at one end with a fed portion configured to be attached to a feed portion and connected to a commercial power source and at the other end with an outlet;

an AC/DC converter accommodated in the casing for converting an alternating current from the fed portion into a direct current;

a boosting transformer accommodated in the casing for boosting voltage from the fed portion;

an ozone generator accommodated in the casing and oriented to face the outlet, and connected to the boosting transformer for enabling application of high voltage from the boosting transformer to the ozone generator; and

an air supply portion formed in the casing for supplying air into the ozone generator,

wherein the ozone generator comprises a needle first electrode having a distal end directed to the outlet and a cylindrical second electrode concentric with the first electrode and disposed concentrically with the outlet, with high voltage applied between the first electrode and the second electrode so as to induce electrical discharge therebetween, generate negative ions and ozone, and release a stream of air containing the generated negative ions and ozone from the first electrode to the second electrode and outlet.

Claim 39 (New): The air cleaning device according to claim 38, wherein the first electrode is accommodated in the casing body and the second electrode in the lid.

Claim 40 (New): An air cleaning device comprising:

a bulb-shaped casing provided at one end with an attached portion configured to be attached to an attaching portion and connected to a commercial power source and at the other end with an outlet;

an ozone generator accommodated in the casing; and

an air supply portion formed in the casing for supplying air into the ozone generator,

wherein the ozone generator comprises a needle first electrode having a distal end directed to the outlet and a plate-like second electrode having a circular opening concentric with the first electrode and disposed concentrically with the outlet, with high voltage applied between the first electrode and the second electrode so as to induce electrical discharge therebetween, generate negative ions and ozone, and release a stream of air containing the generated negative ions and ozone from the first electrode to the second electrode and outlet.

Claim 41 (New): An air cleaning device comprising:

a bulb-shaped casing provided at one end with a fed portion configured to be attached to a feed portion and connected to a commercial power source and at the other end with an outlet;

an AC/DC converter accommodated in the casing for converting an alternating current from the fed portion into a direct current;

a boosting transformer accommodated in the casing for boosting voltage from the fed portion;

an ozone generator accommodated in the casing and oriented to face the outlet and connect to the boosting transformer for enabling application of high voltage from the boosting transformer to the ozone generator; and

an air supply portion formed in the casing for supplying air into the ozone generator, wherein the ozone generator comprises a needle first electrode having a distal end directed to the outlet and a plate-like second electrode having a circular opening concentric with the first electrode and disposed concentrically with the outlet, with high voltage applied between the first electrode and the second electrode so as to induce electrical discharge therebetween, generate negative ions and ozone, and release a stream of air containing the generated negative ions and ozone from the first electrode to the second electrode and outlet.

Claim 42 (New): An air cleaning device comprising:

a bulb-shaped casing provided at one end with an attached portion configured to be attached to an attaching portion and connected to a commercial power source and at the other end with an outlet and an illuminator; and

a negative ion generator accommodated in the casing for inducing electrical discharge generating negative ions, and releasing the negative ions from the outlet.

Claim 43 (New): An air cleaning device comprising:

a bulb-shaped casing provided at one end with a fed portion configured to be attached to a feed portion and connected to a commercial power source and at the other end with an outlet and an illuminator;

an AC/DC converter accommodated in the casing for converting an alternating current from the fed portion into a direct current;

a boosting transformer accommodated in the casing for boosting voltage from the AC/DC converter; and

a negative ion generator accommodated in the casing and oriented to face the outlet and connect the boosting transformer for enabling application of high voltage from the boosting transformer to the negative ion generator so as to induce electrical discharge, generate negative ions, and release the negative ions from the outlet.

Claim 44 (New): An air cleaning device comprising:

a bulb-shaped casing provided at one end with an attached portion configured to be attached to an attaching portion and connected to a commercial power source, and provided at the other end with an outlet and an illuminator;

an ozone generator accommodated in the casing; and

an air supply portion formed in the casing for supplying air into the ozone generator so as to induce electrical discharge, generate negative ions and ozone, and release a stream of air containing the generated negative ions and ozone from the ozone generator to the outlet.

Claim 45 (New): An air cleaning device comprising:

a bulb-shaped casing provided at one end with a fed portion configured to be attached to a feed portion and connected to a commercial power source, and at the other end provided with an outlet and an illuminator;

an AC/DC converter accommodated in the casing for converting an alternating current from the fed portion into a direct current;

a boosting transformer accommodated in the casing for boosting voltage from the fed portion;

an ozone generator accommodated in the casing to face the outlet and connected to the boosting transformer for enabling application of high voltage from the boosting transformer to the ozone generator; and

an air supply portion formed in the casing for supplying air into the ozone generator so as to induce electrical discharge, generate negative ions and ozone, and release a stream of air containing the generated negative ions and ozone from the ozone generator to the outlet.

Claim 46 (New): The air cleaning device according to claim 38, wherein the bulb-shaped casing comprises a casing body having one end provided with the fed portion and the other end configured as an open end, and a lid having one end provided with the outlet and the other end detachably attached to the other end of the casing body.

Claim 47 (New): The air cleaning device according to claim 40, wherein the bulb-shaped casing comprises a casing body having one end provided with the attached portion and the other end configured as an open end, and a lid having one end provided with the outlet and the other end detachably attached to the other end of the casing body.

Claim 48 (New): The air cleaning device according to claim 41, wherein the bulb-shaped casing comprises a casing body having one end provided with the fed portion and the other end configured as an open end, and a lid having one end provided with the outlet and the other end detachably attached to the other end of the casing body.

Claim 49 (New): The air cleaning device according to claim 46, wherein the first electrode is accommodated in the casing body and the second electrode in the lid.



Claim 50 (New): The air cleaning device according to claim 47, wherein the first electrode is accommodated in the casing body and the second electrode in the lid.

Claim 51 (New): The air cleaning device according to claim 48, wherein the first electrode is accommodated in the casing body and the second electrode in the lid.

Claim 52 (New): The air cleaning device according to claim 41, wherein the AC/DC converter and the boosting transformer are made integral.

Claim 53 (New): The air cleaning device according to claim 45, wherein the AC/DC converter and the boosting transformer are made integral.

Claim 54 (New): The air cleaning device according to claim 38, wherein the casing is provided at the other end with an illuminator.

Claim 55 (New): The air cleaning device according to claim 40, wherein the casing is provided at the other end with an illuminator.

Claim 56 (New): The air cleaning device according to claim 41, wherein the casing is provided at the other end with an illuminator.

Claim 57 (New): The air cleaning device according to claim 38, wherein the fed portion comprises a base configured to be attached to and detached from a socket.

Claim 58 (New): The air cleaning device according to claim 40, wherein the attached portion comprises a base configured to be attached to and detached from a socket.

Claim 59 (New): The air cleaning device according to claim 41, wherein the fed portion comprises a base configured to be attached to and detached from a socket.

Claim 60 (New): The air cleaning device according to claim 44, wherein the attached portion comprises a base configured to be attached to and detached from a socket.

Claim 61 (New): The air cleaning device according to claim 45, wherein the fed portion comprises a base configured to be attached to and detached from a socket.

Claim 62 (New): The air cleaning device according to claim 38, wherein the fed portion comprises a base having a pair of pins projecting from a peripheral surface in opposite directions.

Claim 63 (New): The air cleaning device according to claim 40, wherein the attached portion comprises a base having a pair of pins projecting from a peripheral surface in opposite directions.

Claim 64 (New): The air cleaning device according to claim 41, wherein the fed portion comprises a base having a pair of pins projecting from a peripheral surface in opposite directions.

Claim 65 (New): The air cleaning device according to claim 44, wherein the fed portion comprises a base having a pair of pins projecting from a peripheral surface in opposite directions.

Claim 66 (New): The air cleaning device according to claim 45, wherein the fed portion comprises a base having a pair of pins projecting from a peripheral surface in opposite directions.

Claim 67 (New): The air cleaning device according to claim 38, wherein the fed portion comprises a plug having at least one of a pair of blades and pins to be attached to and detached from an electrical receptacle.

Claim 68 (New): The air cleaning device according to claim 40, wherein the attached portion comprises a plug having at least one of a pair of blades and pins to be attached to and detached from an electrical receptacle.

Claim 69 (New): The air cleaning device according to claim 41, wherein the fed portion comprises a plug having at least one of a pair of blades and pins to be attached to and detached from an electrical receptacle.

Claim 70 (New): The air cleaning device according to claim 44, wherein the attached portion comprises a plug having at least one of a pair of blades and pins to be attached to and detached from an electrical receptacle.

Claim 71 (New): The air cleaning device according to claim 45, wherein the fed portion comprises a plug having at least one of a pair of blades and pins to be attached to and detached from an electrical receptacle.